

TITLE 326 AIR POLLUTION CONTROL BOARD

DRAFT RULE #05-118(APCB)

DIGEST

Amends 326 IAC 7-4-2 concerning sulfur dioxide emission limitations at Citizens Gas & Coke Utility, located in Indianapolis, Indiana. Effective 30 days after filing with the Secretary of State.

HISTORY

First Notice: June 1, 2005, Indiana Register (28 IR 2819).

Second Notice and Notice of First Hearing: September 1, 2005, Indiana Register (28 IR 3672).

Change in Notice of First Hearing: April 1, 2006, Indiana Register (29 IR 2252).

Change in Notice of Hearing: June 1, 2006.

Date of First Hearing: June 7, 2006.

326 IAC 7-4-2

DRAFT RULE

SECTION 1. 326 IAC 7-4-2 IS AMENDED TO READ AS FOLLOWS:

326 IAC 7-4-2 Marion County sulfur dioxide emission limitations

Authority: IC 13-14-8; IC 13-17-3-4

Affected: IC 13-12; IC 13-14-4-3; IC 13-16-1

Sec. 2. The following sources and facilities located in Marion County shall comply with the sulfur dioxide emission limitations in pounds per million Btu (lbs/MMBtu) and pounds per hour (lbs/hr), unless otherwise specified, and other requirements:

<u>Source</u>	<u>Facility Description</u>	<u>Emission Limitations</u>	
		<u>lbs./MMBtu</u>	<u>lbs./hr.</u>
(1) Acustar	Boiler 1	2.82	109.98
	Boiler 2	2.82	109.98
	Boiler 3	2.82	109.98
(2) Allison Gas Turbine) Plant 5	Boiler 1	3.99	299.4
	Boiler 2	3.99	299.4
	Boiler 3	3.99	299.4
	Boiler 4	3.99	299.4
(3) Amtrak	Boilers 61 and 62	3.30	208.15
(4) Bridgeport Brass	Boiler 1	3.55	135.8
	Boiler 2	3.55	135.8
	Boiler 3	3.55	135.8

(5) Central Soya	Boiler	4.32	272.0
(6) Central State	Boiler 3	3.39	111.8
	Boiler 7	3.39	169.5
	Boiler 8	3.39	169.5
(7) Citizens Gas	Batteries E & H (each)	0.79 pounds per ton	31.16
	Battery 1	0.23 pounds per ton	15.70
(8) (7) Detroit Diesel Allison-Plant 3	Boiler 1	1.88	67.6
	Boiler 2	1.88	67.6
	Boiler 3	1.88	90.2
	Boiler 4	1.88	135.2
	Boiler 5	1.88	180.3
(9) (8) Diamond Bathurst	#2 Furnace	1.40 pounds per ton	20.22
(10) (9) Ford	Boiler 1	2.43	177.38
	Boiler 2	2.43	354.77
	Boiler 3	2.43	354.77
(11) (10) Fort Harrison	Boiler 1	2.92	151.84
	Boiler 2	2.92	151.84
	Boiler 3	2.92	151.84
	Boiler 4	2.92	151.84
(12) (11) G.M. Truck & Bus Group	Boiler 1	2.31	187.1
	Boiler 2	2.31	187.1
	Boiler 3	2.31	106.3
(13) (12) Indiana Girls School	Boiler	6.00	46.9
(14) (13) IPL-Perry W	Boiler 17	6.0	1,320.0
	Boiler 18	6.0	1,320.0
(15) (14) Indianapolis Sludge	Incinerator 1	2.0 pounds per ton	14.19
Incinerator	Incinerator 2	2.0 pounds per ton	14.19
	Incinerator 3	2.0 pounds per ton	14.19
	Incinerator 4	2.0 pounds per ton	14.19
	Incinerator 5	2.0 pounds per ton	14.19
	Incinerator 6	2.0 pounds per ton	14.19
	Incinerator 7	2.0 pounds per ton	14.19
	Incinerator 8	2.0 pounds per ton	14.19
(16) (15) Marathon	H-H1	1.92	36.46
Petroleum) Indiana Refining	H-H2	1.92	36.46
Division	H-H3	1.92	38.38
	P-H1	1.92	89.03
	P-H2	1.92	82.12
	P-H3	1.92	30.32
	P-H4	1.92	33.19
	P-H5	1.92	9.98
	Alky Reboiler	1.92	53.15
	Crude Heater	1.92	268.05
	Vacuum Heater	1.92	99.20
	Sulfur Recovery	189.0 pounds per ton sulfur	88.17

	FCC (Proc)	3.92 pounds per ton	506.37
	CO Boiler	1.92	228.72
	FCC Chg. Htr.	1.92	88.26
	GH-1	1.92	81.36
(17) (16) Navistar	Boiler 1	2.98	193.72
	Boiler 2	2.98	193.72
	Boiler 3	2.98	193.72
(18) (17) Quaker Oats	Boiler 1	2.79	195.3
	Boiler 2	2.79	195.3
	Murray Boiler	0.50	50.1
(19) (18) Quemetco	Reverberatory Furnace	24.6 pounds per ton	617.0
(20) (19) Refined Metals	Blast Furnace	10.8 pounds per ton	64.8
(21) (20) Reilly Industries	2722 W	1.25	114.75
	2726 S	1.25	49.1
	186 N	1.25	46.0
	2707 V	1.25	20.0
	112 E	0.0**	0.0**
	2710 P	0.0**	0.0**
	Riley	1.25	64.75
	B & W	1.25	49.1
	2724 W	1.25	26.3
	2714 V	1.25	18.8
	2729 Q	1.25	3.8
	2740 Q	1.25	7.5
	732714	1.25	45.0
	2728 S	1.25	7.5
	Still	0.0**	0.0**
	Kettle	0.0**	0.0**
	2607 T	0.0**	0.0**
	702611	0.0**	0.0**
	722804	0.0**	0.0**
	2706 Q	0.0**	0.0**
	2713 W	0.0**	0.0**
	2714 W	0.0**	0.0**
	2720 W	0.0**	0.0**
(22) (21) Rexnord-Link Belt	Boiler A	3.28	101.7
Bearing	Boiler B	3.28	101.7
	Boiler C	0.0*	0.0*
(23) (22) Rexnord-Link Belt	Boiler 1	3.68	117.8
Chain	Boiler 2	3.68	117.8
	Boiler 3	3.68	117.8
(24) (23) Thomson Consumer	Boiler 1	1.95	39.0
Electronics	Boiler 2	1.95	39.0
	Boiler 3	1.95	146.3
	Boiler 4	1.95	146.3
(25) (24) Union Carbide	Boiler 1	3.85	92.4
	Boiler 2	3.85	106.6

	Boiler 3	3.85	148.2
(26) (25) Western Select Properties	Boiler 2	2.52	189.06
	Boiler 3	2.52	189.06
	Boiler 4	2.52	189.06
	Boiler 5	2.52	252.07
(27) (26) Wishard	Boiler 1	4.04	105.0
	Boiler 2	4.04	105.0
	Boiler 3	4.04	105.0

**Less than 0.05

~~(28)~~(27) Allison Gas Turbine Operations Plant 8 shall comply with the sulfur dioxide emission limitations provided in clause (A) or (B) and other requirements as follows:

(A) Boilers 2 through 11 may burn natural gas at any time.

(B) Babcock and Wilcox Boilers 2 through 6 and Combustion Engineering Boilers 7 through 11 may burn fuel oil with a sulfur dioxide emission limitation of two and one-tenth (2.1) lbs/MMBtu each during periods when one (1) of the following conditions is met:

(i) Fuel oil is burned in no more than three (3) Babcock and Wilcox boilers, and fuel oil is not burned in any combustion engineering boiler.

(ii) Fuel oil is burned in no more than two (2) Babcock and Wilcox boilers and no more than two (2) combustion engineering boilers.

(iii) Fuel oil is burned in no more than one (1) Babcock and Wilcox boiler and no more than three (3) combustion engineering boilers.

(C) A log of hourly operational status and fuel type for each boiler shall be maintained at the plant and made available to the department upon request. A daily summary of operating status and fuel type for each boiler for each day of a calendar quarter shall be submitted to the department on a quarterly basis.

(D) Allison Gas Turbine Operations Plant 8 shall erect a twenty (20) foot stack extension with a diameter at the extension outlet of four (4) feet for each stack serving Boilers 2 through 6 in accordance with the following schedule:

(i) Complete design, specifications, and construction drawings and award contracts by August 2, 1988.

(ii) Complete installation of stack extensions by December 2, 1988.

~~(29)~~(28) Indianapolis Power and Light Perry K shall comply with the sulfur dioxide emission limitations in lbs/MMBtu and other requirements as follows:

<u>Boiler Number</u>	<u>Emission Limitations</u>
(A) 17 and 18	0.3
(B) 11, 12, 13, 14, 15, and 16	2.1

(C) As an alternative to the emission limitations in clause (B), sulfur dioxide emissions from Boilers 11, 12, 13, 14, 15, and 16 may comply with any one (1) of the sets of emission limitations in lbs/MMBtu as follows:

<u>Boiler Number</u>	<u>Emission Limitations</u>
(i) 13, 14, 15, and 16	0.0
11 and 12	4.4
(ii) 11, 12, 15, and 16	0.0
13 and 14	4.4
(iii) 11, 12, 13, and 14	0.0
15 and 16	4.4
(iv) 11, 12, 15, and 16	3.0
13 and 14	0.3
(v) 11 and 12	0.3
13, 14, 15, and 16	3.0

(D) The department or the Indianapolis Air Pollution Control Division shall be notified prior to the reliance by Indianapolis Power and Light on any one (1) of the sets of alternative emission limitations specified in

clause (C).

(E) A log of hourly operating status for each boiler shall be maintained and made available to the department upon request. A daily summary indicating which boilers were in service during the day shall be submitted to the department quarterly. In addition, records of the daily average sulfur content, heat content, and sulfur dioxide emission rate for each day in which an alternative set of emission limitations specified in clause (C) is used shall be submitted to the department quarterly.

(F) For the purposes of 326 IAC 7-2-1(c)(1), during thirty (30) day periods in which Indianapolis Power and Light relies on more than one (1) set of emission limitations specified in clauses (B) through (C), a separate thirty (30) day rolling weighted average for each set of limitations shall be determined. Each thirty (30) day rolling weighted average shall be based on data from the previous thirty (30) operational days within the last ninety (90) days for that set of limitations. If Indianapolis Power and Light does not operate thirty (30) days under any one (1) set of limitations within the last ninety (90) days, the rolling weighted average shall be based on all operational days within the last ninety (90) days for that set of limitations.

(G) Boilers 11 through 16 shall be limited to six and zero-tenths (6.0) lbs/MMBtu each until Boilers 11 through 16 achieve compliance with the sulfur dioxide emission limitations specified in clauses (B) through (C). Compliance with the emission limitations specified in clauses (B) through (C) shall be achieved according to the following schedule:

(i) Complete engineering analysis of modifications by April 2, 1988.

(ii) Complete testing and design of modifications and place orders for necessary equipment by May 2, 1989.

(iii) Complete installation of necessary equipment and achieve compliance with emission limitations specified in clauses (B) through (C) by June 2, 1990.

~~(30)~~(29) Indianapolis Power and Light Stout shall comply with the sulfur dioxide emission limitations in lbs/MMBtu and other requirements as follows:

<u>Boiler/Turbine Number</u>	<u>Emission Limitations</u>
(A) Boiler 70	5.3
(B) Boilers 50 and 60	4.7
Boilers 1 through 8	0.0
Boilers 9 and 10 and Gas Turbines 1, 2, and 3	0.35

(C) As an alternative to the emission limitations in clause (B), sulfur dioxide emissions from Boilers 50, 60, and 1 through 10 and Gas Turbines 1, 2, and 3 may comply with any one (1) of the sets of emission limitations in lbs/MMBtu as follows:

<u>Boiler/Turbine Number</u>	<u>Emission Limitations</u>
(i) Boilers 50 and 60	5.2
Boilers 1 through 10 and Gas Turbines 1, 2, and 3	0.0
(ii) Boilers 50 and 60	5.0
Boilers 1 through 10	0.0
Gas Turbines 1, 2, and 3	0.4
(iii) Boilers 50 and 60	4.1
Boilers 1 through 8	0.26
Boilers 9 and 10	0.35
Gas Turbines 1, 2, and 3	0.3
(iv) Boilers 50 and 60	3.9
Boilers 1 through 8	0.34

Boilers 9 and 10 and 0.35
Gas Turbines 1, 2,
and 3

(D) The department or the Indianapolis Air Pollution Control Division shall be notified prior to the reliance by Indianapolis Power and Light on any one (1) of the sets of alternative emission limitations specified in clause (C).

(E) A log of hourly operating status for each boiler shall be maintained and made available to the department upon request. A daily summary indicating which boilers were in service during the day shall be submitted to the department quarterly. In addition, records of the daily average sulfur content, heat content, and sulfur dioxide emission rate for each day in which an alternative set of emission limitations specified in clause (C) is used shall be submitted to the department quarterly.

(F) For the purposes of 326 IAC 7-2-1(c)(1), during thirty (30) day periods in which Indianapolis Power and Light relies on more than one (1) set of emission limitations specified in clauses (B) through (C), a separate thirty (30) day rolling weighted average for each set of limitations shall be determined. Each thirty (30) day rolling weighted average shall be based on data from the previous thirty (30) operational days within the last ninety (90) days for that set of limitations. If Indianapolis Power and Light does not operate thirty (30) days under any one (1) set of limitations within the last ninety (90) days, the rolling weighted average shall be based on all operational days within the last ninety (90) days for that set of limitations.

(G) Indianapolis Power and Light shall install a stack diameter restriction for the stack serving Boilers 50 and 60. The stack diameter restriction shall reduce the diameter to six and one-half (6½) feet at the tip of the stack. The installation of the stack diameter restriction shall be in accordance with the following schedule:

- (i) Complete preliminary design of modifications by December 2, 1988.
- (ii) Place orders for necessary modification by July 2, 1989.
- (iii) Complete installation by February 2, 1990.

(30) Citizens Gas & Coke Utility shall comply with the sulfur dioxide emission limitations, depending on which battery or combination of batteries are in operation, as follows:

<u>Description</u>	<u>Emission Limitations</u> (lbs/ton of coal)	<u>Emission Limitations</u> (lbs/hour)
(A) Battery 1, E, & H	0.67	78.02
(B) Battery 1	0.23	15.70
(C) Battery 1 & E	0.49	46.86
(D) Battery 1 & H	0.50	46.86
(E) Battery E & H	0.79	62.32
(F) Battery E	0.79	31.16
(G) Battery H	0.79	31.16

(H) The department and the Indianapolis office of environmental services shall be notified in writing prior to the reliance by Citizens Gas & Coke Utility on an emission limitation other than clause (A) for determining compliance with the appropriate emission limit.

(I) Citizens Gas & Coke Utility shall monitor the hydrogen sulfide (H₂S) content of the processed and treated coke oven gas used for battery underfiring by sampling and analyzing the coke oven gas for H₂S content at least once per day. The H₂S content of the gas shall be sampled using Determination of Hydrogen Sulphide Content, Cadmium Acetate Method, Method Number DIN 51855 Part 4 (January 1979)*.

(J) Sulfur dioxide emissions in pounds per tons of coal (lbs/ton of coal) and pounds per hour (lbs/hr) shall be calculated using the data on H₂S content and organic sulfur content in the coke oven gas. Citizens Gas & Coke Utility shall submit to the department and the Indianapolis office of environmental services within thirty (30) days of the end of each calendar quarter the calculated sulfur dioxide emission rate in pounds per tons of coal (lbs/ton of coal) and pounds per hour (lbs/hr) for each day during the calendar quarter.

*These documents are incorporated by reference. Copies are available for review and copying at the

Drm (#05-118)
CG & CU SO2 SIP
June 7, 2006

Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Board; 326 IAC 7-4-2; filed Aug 28, 1990, 4:50 p.m.: 14 IR 65; filed Feb 9, 1999, 4:22 p.m.: 22 IR 1959; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477*)